

Remarks

I. Introduction

This is in response to the Final Office Action dated January 29, 2009.

The Office Action rejected claims 19-22 under 35 U.S.C. §112, first paragraph, as not being enabled by the specification.

The Office Action rejected claims 19-22 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action rejected claims 19-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,330,614 to Aggarwal et al. (Aggarwal) in view of U.S. Patent No. 6,055,561 to Feldman et al. (Feldman).

Claim 19 has been amended. No new matter has been added.

Claims 19-22 are pending.

In response to the finality of the Office Action, Applicants submit this Amendment with a Request for Continued Examination (RCE).

II. Rejections under 35 U.S.C. §112

The Office Action rejected claims 19-22 under 35 U.S.C. §112, first paragraph as not being enabled by the specification. Section 3 of the Final Office Action states that "the specification, while being enabling for a procedure to determine NBMA connectivity, does not reasonably provide enablement for a method of operating a first router."

Applicants respectfully submit the Specification explicitly provides a method of operating the router. In fact, the Specification, at least at lines 263, 275, 283, and 295, describes the specific positive actions taken *by the router* and recited in independent claim 19. Specifically, the Specification states that "the router then numbers its local interfaces," "groups the interfaces into connectivity classes," "the router encodes the local connectivity information," and "each router assembles and interprets" (emphasis added). It is unclear to Applicants how this section can be construed as anything other than a method of operating a router.

Applicants submit that it appears that these sections provide at least one manner of performing the method steps recited in independent claim 19. For example, lines 275-277 provide "One way of numbering..." and lines 284-286 and FIG. 3 provide an example of how to encode information. Applicants agree with the Response to Arguments section of the Final Office Action that these limitations should not be read into the claims, but submit that providing at least one possible way of performing the actions sufficiently enables the claims. Further, Applicants respectfully submit that one of skill in the art would understand the various ways "assigning a number," "grouping," "encoding," and "transmitting" could be performed in view of the Specification. For at least these reasons, Applicants' Specification enables a "method of operating a router."

The Final Office Action states that "grouping the local interfaces into connectivity classes" is not enabled because "Claim 19 does not recite how grouping is done or how the grouping limitation relates to the previous limitation." For clarification, Applicants have amended independent claim 19 to recite "grouping the local non-broadcast multiple access interfaces into connectivity classes *using local connectivity information*" (emphasis added). Applicants respectfully submit that one of skill in the art would know how to group interfaces "using local connectivity information." Such grouping is well within the understanding of those of skill in the art and no further description is required to enable such a limitation.

As to "how the grouping limitation relates to the previous limitation," Applicants respectfully submit that the grouping limitation is related to the previous "assigning" limitation by its use in the following "encoding" limitation. Specifically, independent claim 19 recites "encoding information identifying the assigned numbers" and the grouped "connectivity classes." In other words, in the assigning step, interfaces are assigned numbers. In the grouping step, the interfaces are grouped into connectivity classes. Then, the number and grouping information is used in the encoding step. In this way, the grouping limitation is related to both the previous and following limitations in independent claim 19. For at least this reason, Applicants' Specification enables the amended step of "

grouping the local non-broadcast multiple access interfaces into connectivity classes using local connectivity information."

Thus, withdrawal of the rejection under 35 U.S.C. § 112, first paragraph is respectfully requested.

The Office Action also rejected claims 19-22 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the Final Office Action states that "it is unclear what is meant by 'local interfaces' in lines 2-3 and 5." In response, Applicants have amended independent claim 19 to more particularly point out and distinctly claim that which is regarded as the invention. Specifically, amended independent claim 19 now recites "local non-broadcast multiple access interfaces." No new matter has been added by these amendments. Support for these amendments may be found in Applicants' Specification at least at lines 270-278. Amended independent claim 19 now makes clear that the local interfaces are NBMA interfaces of the router. Applicants respectfully submit that one of skill in the art is well aware of the local interfaces of routers and the amended claim makes clear that the interfaces are for interfacing with a NBMA network.

The Final Office Action also states that "it is unclear what is meant by 'local to said first router.'" Applicants respectfully submit that independent claim 19 does not recite this limitation and this rejection is apparently an undeleted holdover from the prior Office Action. Applicants respectfully request the Examiner either remove this rejection or provide some elucidation of exactly what is unclear about being local to a router (assuming the Examiner re-words the rejection to correspond to the pending claims).

Applicants respectfully submit that "local to" is a term defined in the Specification by way of exclusion. That is, as stated in lines 279-280, the number is "local to" the router, "since other routers can qualify it by appending the OSPF Router ID." In other words, the router "assign[s] a number to each of the local non-broadcast multiple access interfaces," as recited in amended

independent claim 19, and that number can be modified (e.g., by appendation) by another router. In this way, the assigned number is "local to" or owned, but not externally controlled, but the assigning router.

In view of these amendments and remarks, Applicants respectfully submit that the terms "local non-broadcast multiple access interfaces" and "local to said router" are clear in light of the specification, and are not indefinite. Thus, withdrawal of the rejection under 35 U.S.C. § 112, second paragraph is respectfully requested.

III. Rejection under 35 U.S.C. §103(a)

Independent claim 19 stands rejected as being unpatentable over Aggarwal in view of Feldman. On page 5 of the Final Office Action, the rejection is reiterated and states that "Applicant mentions NBMS interfaces, OSPF routers, a single NBMA network, etc." and "these limitations are not found in the claims."

First, Applicants respectfully submit that the remarks submitted on pages 6-7 on the Amendment filed October 30, 2008 mention these items by way of background and example, but agree that these elements should not be imported into the claims. Applicants note that the actual refutation of the rejection began by quoting the claim limitations on page 7 and continued on to show how they were not shown in the prior art. The Final Office Action offers no response to these substantive arguments. Accordingly, Applicants assume that the Examiner agrees with the statements made regarding the deficiencies of Aggarwal and Feldman. Since Applicants are not relying on the "NBMS interfaces, OSPF routers, a single NBMA network, etc.," the present §103 is moot and should be removed. For clarity, Applicants reiterate the previously-made arguments (without reliance on features external to the claims) with updates for the present amendments to the claims.

In order to "establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art." In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re

Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). See also MPEP § 2143.03. Neither of the cited references, either alone or in combination, teach all of the claim limitations of independent claim 19. Therefore, Applicants request the withdrawal of the rejection under 35 U.S.C. §103(a).

In particular, independent claim 19 recites the limitations of:

- assigning a number to each of the local non-broadcast multiple access interfaces wherein each of said assigned numbers is local to said router;
- grouping the local non-broadcast multiple access interfaces into connectivity classes using local connectivity information;
- encoding information identifying the assigned numbers and the connectivity classes into a link state packet; and
- transmitting the link state packet to at least one other router in the communication network.

Aggarwal is directed to improving space and processing speeds in networking systems. In particular, Aggarwal describes substituting the checksum field within current IP datagram headers to solve problems related to space and processing speeds while maintaining current network infrastructure. At column 7, lines 20-28 and column 10, lines 32-33, Aggarwal describes that current IP networks assign address into one of three classes, each having a network address and a class address, with the class of addresses grouped based on the size of the network. Aggarwal describes classes A, B, and C, each having different numbers of hosts on the network.

The Final Office Action asserts that assigning the network address to the classes is analogous to the limitation of “assigning a number to each of the local non-broadcast multiple access interfaces wherein each of said assigned numbers is local to said router” recited in amended independent claim 19. However, the addresses are assigned to classes that apply to hosts across an entire network. They are not assigned to local interfaces of a single router. Furthermore, the addresses are network addresses used over an entire network, not numbers that are local to a particular router. Aggarwal does not show assigning numbers, which are local to a router, to local non-broadcast multiple

access interfaces of the router. Therefore, Aggarwal fails to disclose "assigning a number to each of the local non-broadcast multiple access interfaces wherein each of said assigned numbers is local to said router," as recited in amended independent claim 19.

The Final Office Action further asserts that the classes described in column 7, lines 25-28 and column 10, lines 32-33 of Aggarwal show the limitation of "grouping the local non-broadcast multiple access interfaces into connectivity classes" recited in claim 19. However, in Aggarwal, the network addresses are grouped into these classes, not local interfaces of a single router.

Moreover, page 12, lines 259-261 of the present specification define a connectivity class as "a set of NBMA interfaces attached to one OSPF router that are connected to a single NBMA network and hence enjoy equivalent connectivity." Applicants also point out that Section 2111.01 (IV) of the MPEP states that "[a]n applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning." As shown above, the "connectivity classes" of independent claim 19 have a meaning that the network classifications of Aggarwal do not. That is, the classes in Aggarwal are classifications of networks based on a number of hosts in the network, not a set of NBMA interfaces of a router that are connected to the same NBMA network. Therefore, Aggarwal fails to disclose "grouping the local non-broadcast multiple access interfaces into connectivity classes," as recited in amended independent claim 19.

Feldman is directed to mapping IP routing information onto a technology that uses label switching and swapping, such as ATM, without the need to change the network paradigm. Feldman does not disclose "assigning a number to each of the local non-broadcast multiple access interfaces wherein each of said assigned numbers is local to said router" or "grouping the local non-broadcast multiple access interfaces into connectivity classes using local connectivity information," as recited in amended independent claim 19.

For the reasons described above, neither Aggarwal nor Feldman, separately or in combination, teach all of the limitations of amended independent claim 19. Therefore, independent claim 19 is allowable over the cited art. All remaining claims are dependent upon an allowable independent claim and are therefore also allowable.

IV. Conclusion

For the reasons discussed above, all pending claims are allowable over the cited art. Reconsideration and allowance of all claims is respectfully requested.

Respectfully submitted,

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